

# Current Water Conditions in Massachusetts

## February 14, 2008



- January precipitation was below normal
- January streamflows were normal
- January ground-water levels were mostly normal
- Reservoir levels are generally normal

### Precipitation Conditions

The statewide average precipitation for January 2008 is estimated as 2.61 inches, about 72 percent of normal. The regions of Massachusetts received between 83 percent (Northeast) and 59 percent (Connecticut River) of normal precipitation during January. Several rain and snow events during the month generally contributed only small amounts of precipitation throughout Massachusetts. A table of January 2008 estimated precipitation statistics, based on precipitation data from the Department of Conservation and Recreation and National Weather Service precipitation monitoring networks is attached. A map at the back of this report shows the distribution of January total rainfall in New England.

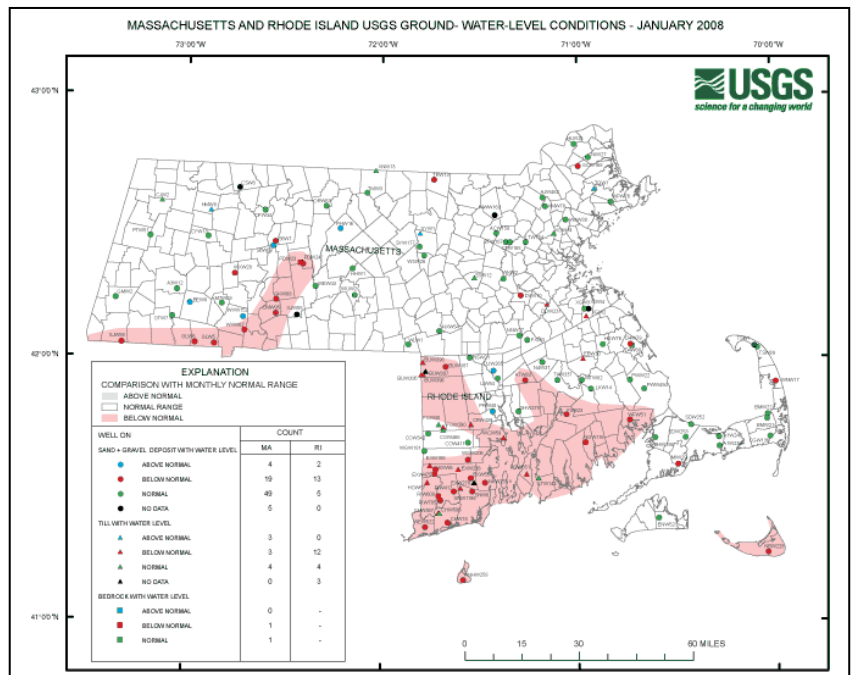
Early February has been warmer than normal with above normal precipitation and runoff to date. In general, 5 to 10 inches of precipitation has been observed across most of the State with lesser amounts, ranging from 2 to 5 inches, observed on the Cape and SE MA.

A Drought Advisory for the Connecticut River, Central, Northeast, and Southeast Regions of Massachusetts remains in effect. The Massachusetts Drought Management Task Force is scheduled to meet again on March 18<sup>th</sup> to re-evaluate hydrologic conditions in Massachusetts. Based on current conditions and hydrologic trends it is highly probable that the Advisory will be discontinued at that time.

### Ground Water Levels

Ground-water levels reported by the United States Geological Survey (USGS) at the end of January 2008 were generally normal (white area on map) in a major portion of the State. Levels were below normal (pink areas on map) on Nantucket and two small areas in southeastern and southwestern MA.

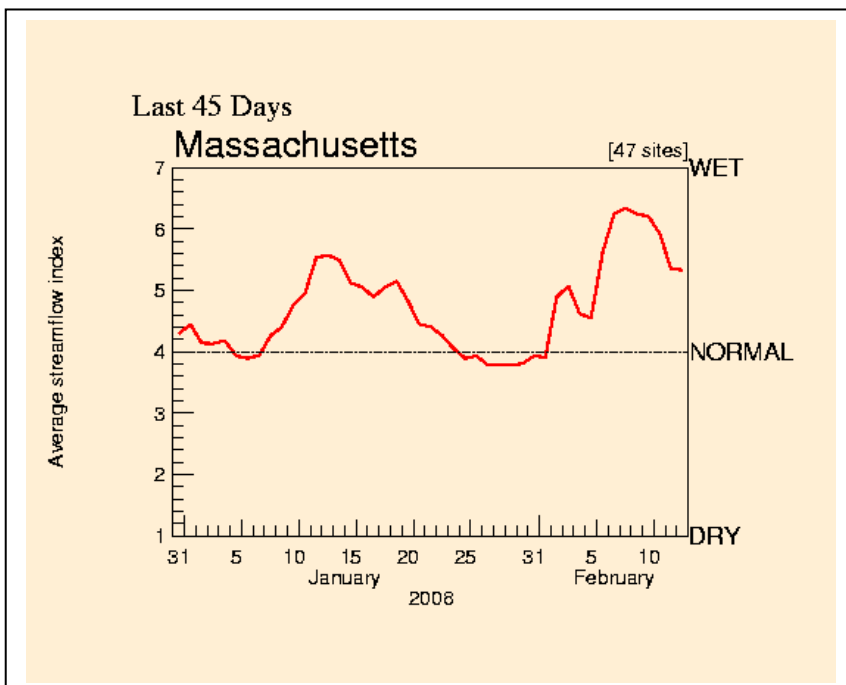
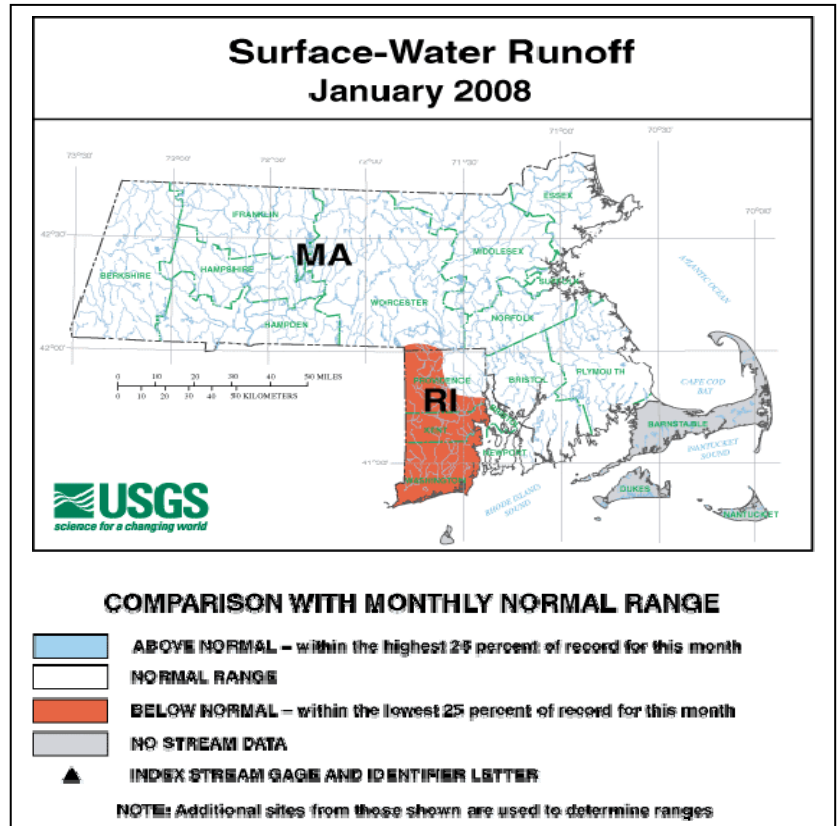
The USGS ground water level map and a Water Conditions Statement for the end of January 2008 can be viewed at the web site: [http://ma.water.usgs.gov/water/water\\_g.htm](http://ma.water.usgs.gov/water/water_g.htm)



## Stream Flow

During January stream flows in Massachusetts that are monitored by the United States Geological Survey (USGS) were normal (white area) throughout the State. The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts as of February 14, 2008. The graph is a composite of 47 gages across the state with a long period of record. Near normal streamflow at the beginning January rose in response to several precipitation events and warmer weather during the 1<sup>st</sup> half of the month. Stream flows slowly declined during the second half of January. Stream flows have risen dramatically during the 1<sup>st</sup> part of February in response to multiple precipitation events. The Housatonic River reached a low flood stage. The potential for flooding due to rainfall and snowmelt is presently above normal in north central and western Massachusetts. Additional information on streamflow is available from the USGS web page: <http://ma.water.usgs.gov/water/waters.htm>

Information on flooding conditions is available from the NWS web page: <http://newweb.erh.noaa.gov/ahps2/forecasts.php?wfo=box&view=1,1,1,1,1,1,1,1&toggles=10,7,8,2,9,15,6>



### KEY:

- 1 = New record low for day
- 2 = < 10<sup>th</sup> percentile
- 3 = 10<sup>th</sup> – 24<sup>th</sup> percentile
- 4 = 25<sup>th</sup> – 74<sup>th</sup> percentile
- 5 = 75<sup>th</sup> – 89<sup>th</sup> percentile
- 6 = ≥ 90<sup>th</sup> percentile
- 7 = New record high for day

## Water Supply Reservoir Levels

Surface water reservoir percent full values for water supply sources provided by water suppliers are listed below. The reservoir levels listed are reported to range from above to a little below normal for this time of year.

*January 2007 /February 2008 Massachusetts Reservoir Status*

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	88	Beverly/Salem	96
Worcester	82	Lynn	66.8
Cobble Mt./ Springfield	78	Taunton/New Bedford/Assawompsett	94.6

Note: N.A. Indicates data not available for this report

## Fire Danger

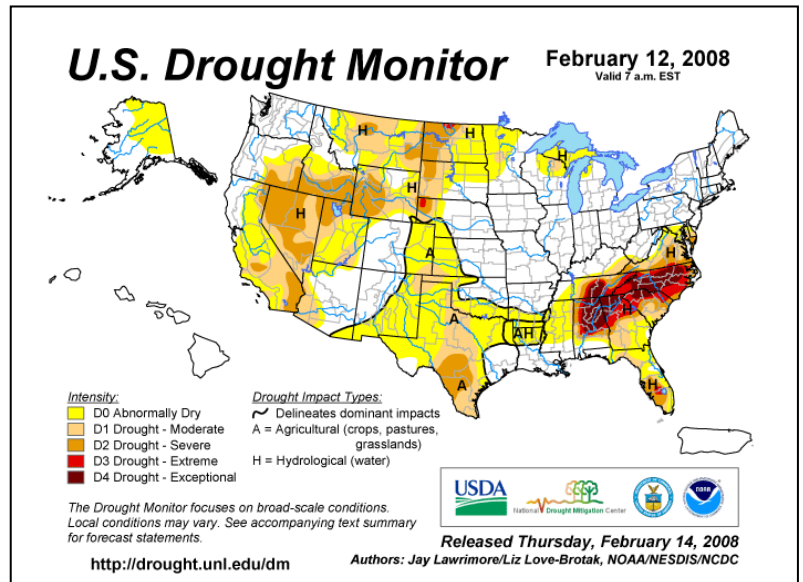
During January the cold weather, rain/snow events, and snow cover have resulted in a low fire danger.

## Drought Indices/Forecasts

The National Drought Mitigation Center's (NDMC's) February 12, 2008 Drought Monitor Map of The United States shown at right indicates that there are no drought conditions in Massachusetts or the entire northeast United States.

### Standardized Precipitation Index:

The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of January shows normal and moderately dry (west), normal, moderately dry and normal (west), and normal conditions respectively, across Massachusetts.



NWS/NOAA's Climate Prediction Center: The U.S. Seasonal Drought Outlook dated February 3, 2008 shows normal conditions through April 2008.

## Extended Forecasts

A frontal passage on Friday is forecast to bring small amounts of precipitation to parts of the State. Several low pressure systems are predicted to impact the NE during the coming week. The National Weather Service Climate Prediction Center's extended 6-10 day forecast predicts below normal temperature and above normal precipitation. The 8-14 predicts above normal temperature and precipitation. The 1 and 3 month extended forecasts both predict normal temperatures and precipitation.

